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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,938

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Richard Stone

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EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,938	Applicant(s) STONE ET AL.	
	Examiner Andrew T. Piziali	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/2/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-10, it is not clear what is considered an “unbroken weft path.”

Regarding claims 2-5, use of “predetermined” has been held to be indefinite in a claim where it simply means determined beforehand, *Joseph E. Seagram & Sons, Inc. V. Marzall*, Comr. Pats., 84 USPQ 180 (Court of Appeals, District of Columbia). Although the current claims do not specifically mention the word “predetermined” the claims do mention “preselected.” Similar to “predetermined” use of “preselected” is indefinite because it appears to simply mean determined or selected beforehand.

Regarding claims 6-8, it is not clear if the fabric is subjected to a heatsetting process or if the fabric would simply possess the claimed properties if it were subjected to a heatsetting process.

Regarding claims 7 and 8, it is not clear if the air permeability is in cubic feet per minute per square foot (claim 7) or cubic feet per minute (claim 8). It is noted that air permeability is conventionally written in terms of CFM (cubic feet per minute).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,349,749 to Quigley in view of anyone of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley (hereinafter referred to as Quigley #2).

Regarding claims 1-6 and 9, Quigley discloses a triple layer industrial fabric (as defined by applicant) having a paper side (PS) layer and a machine side (MS) layer comprising polymeric warp and weft yarns woven to a repeat pattern wherein: (i) all of the warp yarns are arranged as vertically stacked pairs; (ii) all of the weft yarns comprise pairs of intrinsic weft binder yarns each having a first and second member each of which contributes to the structure of both the PS and the MS layers of the fabric and binds together the PS and MS layers; and (iii) each pair of intrinsic weft binder yarns forms an unbroken weft path in both the PS layer and the MS layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see entire document including Figure 2 and column 1, line 39 through column 2, line 6).

Quigley discloses that the yarns are synthetic (paragraph bridging columns 1 and 2), but Quigley is silent with regards to specific synthetic materials. Therefore, it would have been necessary and thus obvious to look to the prior art for conventional synthetic yarn materials.

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Wang provides this conventional teaching showing that it is known in the art to use polymeric material such as PET (see entire document including column 8, lines 19-65). Quigley #2 also provides this conventional teaching showing that it is known in the art to use polymeric material such as polyetheretherketone (see entire document including column 2, lines 59-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the synthetic yarns from PET or polyetheretherketone motivated by the expectation of successfully practicing the invention of Quigley and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Quigley discloses that the PS layer has an exposed PS surface and the MS layer has an exposed MS surface; and wherein (i) in a first portion of the repeat pattern, the first member is exposed in the PS surface over a preselected number (N1) of PS warp yarns while the second member is exposed in the MS surface over a preselected number (N2) of MS warp yarns; and (ii) in a second portion of the repeat pattern the first member is exposed in the MS surface over a preselected number (M1) of MS warp yarns while the second member is exposed in the PS surface over a preselected number (M2) of PS warp yarns (see Figure 2).

Regarding claim 3, the value of N1 is equal to the value of N2, and the value of M1 is equal to the value of M2 (see Figure 2).

Regarding claim 4, the value of N1 is equal to the value of M2, and the value of N2 is equal to the value of M1 (see Figure 2).

Regarding claim 5, the values of each of N1, N2, M1 and M2 are equal (see Figure 2).

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Regarding claim 6, for each unit area, viewed substantially perpendicularly to the PS surface of the PS layer or the MS surface of the MS layer, an open space projected through the fabric has an area in a range of 35% to 50% of the unit area (see Figure 2).

In the event that it is shown that Quigley does not teach the claimed open space area with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the open space area because it is understood by one of ordinary skill in the art that the open space area determines the amount of air that is allowed to travel through the fabric because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

5. Claims 7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,349,749 to Quigley in view of anyone of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley as applied to claims 1-6 and 9 above, and further in view of anyone of USPN 4,921,750 to Todd or USPN 5,496,624 to Stelljes.

Regarding claims 7 and 8, Quigley does not appear to mention the air permeability of the fabric, therefore, it would have been necessary and thus obvious to look to the prior art for conventional air permeability. Todd and Stelljes each provide this conventional teaching showing that it is known in the art to use an air permeability in the range of 900 to 1100 CFM (see entire documents including column 4, lines 44-49 of Todd and column 9, lines 21-37 of Stelljes). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fabric with the claimed air permeability motivated by the expectation of successfully practicing the invention of Quigley.

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Regarding claim 10, Quigley does not appear to mention a polymeric resinous coating, but Todd and Stelljes each disclose that it is known in the art to coat the surface of an industrial fabric with a polymeric resinous coating to produce a desired surface pattern (see entire document including column 1, lines 23-45 of Todd and column 6, lines 20-34 of Stelljes). It would have been obvious to one having ordinary skill in the art at the time the invention was made to coat the PS surface of the PS layer with a polymeric resinous coating, motivated by a desire to produce a surface pattern.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,921,750 to Todd in view of anyone of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley.

Regarding claims 1-10, Todd discloses a triple layer industrial fabric (as defined by applicant) having a paper side (PS) layer and a machine side (MS) layer comprising polymeric warp and weft yarns woven to a repeat pattern wherein: (i) all of the warp yarns are arranged as vertically stacked pairs; (ii) all of the weft yarns comprise pairs of intrinsic weft binder yarns each having a first and second member each of which contributes to the structure of both the PS and the MS layers of the fabric and binds together the PS and MS layers; and (iii) each pair of intrinsic weft binder yarns forms an unbroken weft path in both the PS layer and the MS layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see entire document including Figures 2-4 and column 1, lines 8-13).

Todd is silent with regards to specific yarn materials, therefore, it would have been necessary and thus obvious to look to the prior art for conventional yarn materials. Wang provides this conventional teaching showing that it is known in the art to use polymeric material such as PET (see entire document including column 8, lines 19-65). Quigley #2 also provides this conventional teaching showing that it is known in the art to use polymeric material such as polyetheretherketone (see entire document including column 2, lines 59-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the yarns from PET or polyetheretherketone motivated by the expectation of successfully practicing the invention of Todd and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Todd discloses that the PS layer has an exposed PS surface and the MS layer has an exposed MS surface; and wherein (i) in a first portion of the repeat pattern, the first member is exposed in the PS surface over a preselected number (N1) of PS warp yarns while the second member is exposed in the MS surface over a preselected number (N2) of MS warp yarns; and (ii) in a second portion of the repeat pattern the first member is exposed in the MS surface over a preselected number (M1) of MS warp yarns while the second member is exposed in the PS surface over a preselected number (M2) of PS warp yarns (see Figures 2-4).

Regarding claim 3, the value of N1 is equal to the value of N2, and the value of M1 is equal to the value of M2 (see Figures 2-4).

Regarding claim 4, the value of N1 is equal to the value of M2, and the value of N2 is equal to the value of M1 (see Figures 2-4).

Regarding claim 5, the values of each of N1, N2, M1 and M2 are equal (see Figures 2-4).

Regarding claim 6, for each unit area, viewed substantially perpendicularly to the PS surface of the PS layer or the MS surface of the MS layer, an open space projected through the fabric has an area in a range of 35% to 50% of the unit area (see Figures 2-4).

In the event that it is shown that Todd does not teach the claimed open space area with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the open space area because it is understood by one of ordinary skill in the art that the open space area determines the amount of air that is allowed to travel through the fabric because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 7 and 8, the fabric has an air permeability in a range of 900 to 1100 CFM (column 4, lines 44-49).

Regarding claim 10, the PS surface of the PS layer of the fabric has a polymeric resinous coating (column 1, lines 23-45 and column 4, lines 57-65).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/

Primary Examiner, Art Unit 1794